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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/991,893	11/05/2001	Wenhua Lin	LIGHT2180	3380

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EXAMINER

DOAN, JENNIFER

ART UNIT	PAPER NUMBER
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2874

DATE MAILED: 01/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

12

Office Action Summary	Application No. 09/991,893	Applicant(s) LIN, WENHUA	
	Examiner Jennifer Doan	Art Unit 2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,5-11,13,14 and 16-19 is/are rejected.
- 7) ☒ Claim(s) 2-4,12 and 15 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>0202</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings, filed on 06/24/2002, are accepted.

Specification

2. Claims 3-18 are objected to because of the following informalities:

The numbering of claims is not correctly numbered.

Misnumbered claims 3, 3-18 have been renumbered as 3, 4-19 respectively.

In line 1 of claims 6 and 7, "claim 4" has been changed to "claim 5".

In line 1 of claim 9, "claim 7" has been changed to "claim 8".

In line 1 of claims 14 and 15, "claim 12" has been changed to "claim 13".

In line 1 of claim 18, "claim 16" has been changed to "claim 17".

Applicant's cooperation is requested in correcting any other errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

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applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 5-11, 13 and 17-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Aksyuk et al. (U.S. Patent 6,636,657).

Regarding claims 1, 10, 17 and 19, Aksyuk et al. disclose (in figure 4) a method and an apparatus of an equalizer comprising a light distributor (401) configured to distribute light signals received through an inlet side across an outlet side, each of the light signals being associated with a different wavelength; optics configured to cause different light signals to separate the light signals travel through the light distributor (column 4, lines 58-60); and a plurality of attenuators (403) configured to attenuate the light signals in a region of the light distributor (401) where the light signals are separated from one another.

Regarding claims 5 and 6, Aksyuk et al. disclose (in figure 4) an equalizer wherein the outlet side includes a plurality of outlet ports, which are in optical communication with an array waveguide grating, and the light distributor (406) distributes the light signals across a plurality of the outlet ports (column 4, lines 46-47).

Regarding claim 7, Aksyuk et al. disclose (in figure 4) an equalizer wherein the array waveguide grating is in optical communication with an outlet light distribution component (406) to direct light signals received from the array waveguide grating to a port of an output waveguide (column 3, lines 29-32).

Regarding claim 8, Aksyuk et al. disclose an equalizer wherein the optics include an array waveguide grating (column 4, lines 58-60).

Regarding claims 9 and 18, Aksyuk et al. disclose an equalizer wherein the optics are in optical communication with an input light distribution component (401) to distribute light signals received from an input waveguide across ports of the array waveguide grating as shown in figures 3 and 4.

Regarding claim 11, Aksyuk et al. disclose (in figure 1) an equalizer wherein the attenuators (104) include a plurality of electrical contacts positioned on the same side of the light distributor (101) (column 3, lines 47-56).

Regarding claim 13, Aksyuk et al. disclose an equalizer wherein the light distributor is defined in a light-transmitting medium positioned over a base (column 2, lines 11-17 and column 3, lines 29-46).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aksyuk et al. (as cited above).

Aksyuk et al. disclose an equalizer with all the limitations set forth in the claims as discussed above, except for the base having a pocket and the light distributor being positioned over the pocket as recited in claim 14. However, the base having a pocket is considered to be obvious, since making the base with the pocket is one of many modifications to support the optical device. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Aksyuk device with a base having a pocket. Doing so would be desirable to obtain a strong support for an optical device.

Aksyuk et al. disclose an equalizer with all the limitations set forth in the claims as discussed above, except the functional light distributor includes grooves between adjacent attenuators as recited in claim 16. However, the functional light distributor having grooves is also considered to be obvious, since making the grooves is one of many modifications to hold and support the optical device. Such an element would advantageously provide for holding and supporting the optical device. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Aksyuk device with a base having a pocket. Doing so would be desirable to obtain a strong support for an optical device.

Allowable Subject Matter

7. Claims 2-4, 12 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art fails to disclose or reasonably suggest an equalizer comprising a light distributor to contract the light signals received through the inlet side to a focal point as recited in claim 2; wherein an attenuator includes one or more electrical contacts positioned over and under the light distributor as recited in claim 12; and further wherein portions of the pocket are positioned under one or more of the attenuators and the light transmitting medium contacts the base between two of the attenuators as recited in claim 15.

Claims 3 and 4 are dependent on the objected claim 2.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Day et al. (U.S. Patent 6,266,464), Whiteaway et al. (U.S. Patent 6,374,013), Augustsson (U.S. Patent 6,452,718), Nishimura et al. (U.S. Patent 6,507,680), Kashihara et al. (U.S. Patent 6,539,158) and Delisle et al. (U.S. 2001/0033715) disclose an arrayed waveguide grating device.

9. The prior art documents submitted by applicant in the Information Disclosure Statement filed on 02/07/2002, have all been considered and made of record (note the attached copy of form PTO-1449).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Doan whose telephone number is (571) 272-2346. The examiner can normally be reached on Monday to Thursday from 6:00am to 3:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Jennifer Doan

JD

December 29, 2003

Phan T. H. Palmer

**PHAN T. H. PALMER
PRIMARY EXAMINER**